

### REMARKS

Claims 1-15 are pending in the present application, leaving Claims 1-15 for consideration upon entry of the present Remarks. Reconsideration and allowance of the claims is respectfully requested in view of the following remarks.

Applicants are respectfully aware of the limitations of 37 C.F.R. 1.116. Applicants Remarks do not require a new search. No claim amendments have been made.

#### Oath/Declaration

The oath or declaration is defective as not being in compliance with 37 CFR 1.67(a) because there is no oath or declaration present in the file. A copy of the combined Declaration and Power of Attorney executed 25 January 2001 is included with the present response. Applicants respectfully submit that the declaration is now in compliance with 37 CFR 1.67(a).

#### Claim Rejections – 35 U.S.C. 103(a)

Claims 1, 2, 4, 5, 7 and 8 stand rejected under U.S.C. § 103(a) as being unpatentable over U.S. Patent Number 5,912,993 to Puetter et al. (hereinafter "Puetter"). Applicants respectfully disagree.

To establish a *prima facie* case of obviousness, it is known that three basic criteria must be met: (1) there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings; (2) there must be a reasonable expectation of success; and (3) the prior art reference(s) must teach or suggest all the claim limitations. *In re Fine*, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988); *In Re Wilson*, 165 U.S.P.Q. 494, 496 (C.C.P.A. 1970); *Amgen v. Chugai Pharmaceuticals Co.*, 927 U.S.P.Q.2d 1016, 1023 (Fed. Cir. 1996).

Claim 1 recites, *inter alia*,

"A method of reconstructing a signal from a given data set of data, the method comprising the steps of: altering the coordinate basis of the data and signal from an original coordinate basis in order to produce a prediction function having a reduced set of variables."

The Examiner respectfully alleges that Puetter discloses the claimed invention at Col. 7, lines 9-11. (See, Page 4 of the Office Action.) Here, Puetter discloses "[s]moothing the pseudo-image with the local pixion width has the effect of correlating the pixel values in the pseudo-image, thereby greatly reducing the number of degrees of freedom in the image." To support the rejection, it is further contended that correlating the pixel values in the pseudo-image (Col. 7, lines 9-11) and thus reducing the number of degrees of freedom (Col. 7, lines 10-13) of Puetter inherently changes the coordinate basis since said coordinate basis uses a reduced set of variables, and thus a reduces set of coordinates. (See, Page 4 of the Office Action.) Applicants respectfully disagree.

As respectfully detailed in the Response to Arguments in the present Office Action (See, Page 3), Puetter teaches reducing the number of degrees of freedom, or independent variables, then the *coordinate basis has changed*. The coordinates of the data and signal are not altered in Puetter, but only variables are reduced. Smoothing the pseudo-image, effectively correlating the pixel values, does not disclose "altering the coordinate basis" of the claimed invention. Thus, Puetter does not teach or suggest "altering the coordinate basis of the data and signal" as recited in Claim 1.

Puetter discloses a reduction of degrees of freedom, or variables, based on a fixed coordinate basis to represent data. For example, if we take the simple situation of a three-dimensional space with X, Y and Z dimensions, Peutter would reduce the amount of travel in each of those three, but is not altering the coordinate basis of the data in the three directions to

represent the data. Thus, Puetter further does not teach or suggest "altering the coordinate basis of the data and signal" as recited in Claim 1.

Furthermore, "[t]o establish inherency, the extrinsic evidence 'must make clear that the missing descriptive matter is necessarily present (emphasis added) in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.' " *In re Robertson*, 169 F. 3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999). Applicants respectfully submit that "altering the coordinate basis" is not *necessarily present* in the correlating the pixel values in the pseudo-image described in Puetter as to be so recognized by persons of ordinary skill. Thus, Puetter does not teach or suggest "altering the coordinate basis of the data and signal" as recited in Claim 1.

As discussed above, Puetter *does not teach or suggest all of the limitations* of at least Claim 1. Thus, *prima facie* obviousness does not exist regarding Claim 1 with respect to the Puetter patent.

Additionally, since Puetter fails to teach or suggest all of the limitations of at least Claim 1, one of ordinary skill at the time of Applicant's invention would not have a *motivation to modify the reference*, nor a reasonable likelihood of success in forming the claimed invention by the Examiner's modifying the reference. Thus, here again, *prima facie* obviousness is unfounded. *Id.*

Thus, the requirements of *prime facie* obviousness are not met by the Examiner's 35 U.S.C. 103(a) rejection of Claim 1. Accordingly, reconsideration and withdrawal of the outstanding rejection of Claim 1 is respectfully requested. Claim 1 is not further rejected or

objected to, and Applicant respectfully submits that Claim 1 is allowable to Applicants. Claims 2, 4, 5, 7 and 8 variously depend from Claim 1. Therefore, Claims 2, 4, 5, 7 and 8 are correspondingly allowable as depending upon allowable Claim 1. Reconsideration and withdrawal of the relevant rejection is respectfully requested.

Claim 3 stands rejected under U.S.C. § 103(a) as being unpatentable over Peutter in view of U.S. Patent Number 5,457,639 to Ulich et al. (hereinafter "Ulich") and U.S. Patent Number 5,576,548 to Clarke (hereinafter "Clarke").

Claims 6, 10-12 and 15 stand rejected under U.S.C. § 103(a) as being unpatentable over Peutter in view Ulich and U.S Patent Number 4,099,179 to Hofstein (hereinafter "Hofstein").

Claims 9, 13 and 15 stand rejected under U.S.C. § 103(a) as being unpatentable over Peutter in view Ulich, Hofstein and U.S. Patent Number 5,226,019 to Bahorich (hereinafter "Bahorich"). Applicants note that while Claim 9 is not included in the introductory sentence of Item 9. on Page 11 of the Office Action, a rejection regarding Claim 9

is detailed at the bottom of Page 12. Also, Claim "16" is included in the introductory sentence and on Page 12 of the Office Action, but the details of the rejection appear to refer to Claim 15 (only Claims 1-15 are pending). Applicants understand Item 9. of the Office Action to include Claims 9, 13 and 15.

Claims 9 and 14 stand rejected under U.S.C. § 103(a) as being unpatentable over Peutter in view of Ulich and U.S. Patent Number 5,252,922 to Larson (hereinafter "Larson").

Claims 3, 6 and 9-15 depend from Claim 1. As discussed above, independent Claim 1 is allowable. Therefore, Claims 3, 6 and 9-15 are correspondingly allowable as depending upon allowable Claim 1. Reconsideration and withdrawal of the relevant rejection is respectfully requested.

All of the objections and rejections are herein overcome. No new matter is added by way of the present Amendments and Remarks, as support is found throughout the original filed specification, claims and drawings. The application is now allowable to Applicants. Prompt issuance of Notice of Allowance is respectfully requested.

The Examiner is invited to contact Applicants' attorney at the below listed phone number regarding this response or otherwise concerning the present application.

If there are any charges due with respect to this Amendment or otherwise, please charge them to Deposit Account No. 06-1130 maintained by Applicants' attorneys.

Respectfully submitted,  
CANTOR COLBURN LLP

By: Amy Bizon-Copp

Amy Bizon-Copp

Registration No. 53,993

CANTOR COLBURN LLP

55 Griffin Road South

Bloomfield, CT 06002

Telephone: 860-286-2929

Facsimile: 860-286-0115

Customer No. 23413

Date: August 29, 2005